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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,790	09/29/2000	Donald F. Ferguson	P24324 USA	8873

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EXAMINER
JACOBS, LASHONDA T

ART UNIT	PAPER NUMBER
2157	3

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _29 September 2003_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-14 and 17-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-14 and 17-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _2_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1.   Restriction to one of the following inventions is required under 35 U.S.C. 121.

I.   Claims 1-14, and 17-20, drawn to a method for upgrading at least one of a

plurality of computer programs stored on an application server in a distributed computing

environment, classified in class 709, subclass 221.

II.   Claims 15 and 16, drawn to an application server for facilitating upgrading in a

distributed computing environment, classified in class 709, subclass 203.

2.   The inventions are distinct, each from another because of the following reasons:

Inventions I and II are related as sub-combinations disclosed as usable together in a single

combination. The sub-combinations are distinct from each other if they are shown to be

separately usable. In the instant case, invention I has separate utility such as in a method where

the user network transactions are simulated (as set forth in invention II). See MPEP § 806.05(d).

3.   During a telephone conversation between Barbara Burgess and Gregory Bernabeo on

Wednesday, October 29, 2003, a provisional election was made without traverse to prosecute the

invention System and method for upgrading software in a distributed computer claims 1-14, and

17-20. Affirmation of this selection must be made by applicant in replying to this Office Action.

Claims 15 and 16 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b),

as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
> in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
> patent by another filed in the United States before the invention by the applicant for patent, except that an
> international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
> subsection of an application filed in the United States only if the international application designated the United
> States and was published under Article 21(2) of such treaty in the English language.

2.   Claims **1-3, 7, 13-14** and **17** are rejected under 35 U.S.C. 102(e) as being anticipated by

Chao et al (hereinafter, "Chao", 6,662,159).

As per claim **1**, Chao discloses a method for upgrading at least one of a plurality of

computer programs stored on an application server in a distributed computing environment, said

method comprising:

- preventing said application server from servicing requests for an upgrade-ready

  computer program while permitting said application server to service client requests for

  other computer programs (abstract, col. 1, lines 27-47, col. 2, lines 26-38, col. 3, lines

  36-57, col. 4, lines 26-45 and col. 5, lines 1-24).

As per claim **2**, Chao further discloses:

(a) preventing said application server from receiving any new requests for said computer

program (abstract, col. 1, lines 27-47, col. 2, lines 26-38, col. 3, lines 36-57, col. 4, lines 26-

45 and col. 5, lines 1-24);

(b) waiting until all of said application server's current requests for said computer have

ended (abstract, col. 1, lines 27-47, col. 2, lines 26-38, col. 3, lines 36-57, col. 4, lines 26-45

and col. 5, lines 1-24);

(c) acknowledging completion of upgrading said computer program (abstract, col. 1, lines 27-47, col. 2, lines 26-38, col. 3, lines 36-57, col. 4, lines 26-45 and col. 5, lines 1-24); and

(d) permitting said application server to receive any new requests for said computer program (abstract, col. 1, lines 27-47, col. 2, lines 26-38, col. 3, lines 36-57, col. 4, lines 26-45 and col. 5, lines 1-24).

As per claim 3, Chao discloses:

(e) sending a signal to a router to instruct said router to stop routing requests for said computer program to said application server (col. 1, lines 27-47, lines 65-67, col. 2, lines 1-10, lines 26-38 and col. 5, lines 1-24, Chao's system buffers any received client calls during switching until the upgrade is completed).

As per claim 7, Chao discloses wherein step (d) comprises the step of:

(f) sending a signal to a router to instruct said router to begin routing requests for said computer program to said application server (col. 1, lines 27-47, lines 65-67, col. 2, lines 1-10, lines 26-38 and col. 5, lines 1-24, Chao's system processes any buffered client calls received during switching to be service by the server).

As per claim 13, Chao further discloses the step of:

(k) repeating steps (a) through (d) for a next application server storing said computer program (abstract, col. 1, lines 27-47, col. 2, lines 26-38, col. 3, lines 36-57, col. 4, lines 26-45 and col. 5, lines 1-24).

As per claim 14, Chao discloses wherein step (c) comprises the step of:

(l) receiving a signal from an application server upon completion of upgrading of said

computer program at said application server (abstract, col. 1, lines 27-47, col. 2, lines 26-38,

col. 3, lines 36-57, col. 4, lines 26-45 and col. 5, lines 1-24).

As per claim **17**, Chao discloses a method for upgrading one of a plurality of computer

programs stored on an application server in a distributed computing environment, said method

comprising the steps of:

(a) instructing a router to stop routing requests for said computer program to said

application server (col. 1, lines 27-47, lines 65-67, col. 2, lines 1-10, lines 26-38 and col. 5,

lines 1-24, Chao's system buffers any received client calls during switching until the

upgrade is completed);

(b) waiting until said application server is no longer supporting a current client request for

said computer program (abstract, col. 1, lines 27-47, col. 2, lines 26-38, col. 3, lines 36-57,

col. 4, lines 26-45 and col. 5, lines 1-24);

(c) after completion of upgrading of said computer program, instructing said router to begin

routing requests for said computer program to said application server (col. 1, lines 27-47,

lines 65-67, col. 2, lines 1-10, lines 26-38 and col. 5, lines 1-24, Chao's system processes

any buffered client calls received during switching to be service by the server).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims **4-6** and **8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Chao in view of Foster.

As per claims **4** and **8**, Chao discloses the invention substantially as claimed.

However, Chao does not explicitly disclose wherein said signal in steps (e) and (f) comprises:

- an identification code identifying said computer program.

Foster discloses a method and apparatus for packaging and distributing software including:

- an identification code identifying said computer program (abstract, col. 3, lines 12-25, col. 6, lines 21-28 and col. 8, lines 12-21).

Given the teaching of Foster, it would have been obvious to one of ordinary skill in the art to specify an identification code for the software program used in Chao in order to provide sufficient descriptive information about the software program being upgraded on the server.

As per claim **5**, Chao discloses the invention substantially as claimed.

However, Chao does not explicitly disclose wherein identification code comprises:

- a universal resource locator.

Foster discloses a method and apparatus for packaging and distributing software including:

- a universal resource locator (abstract, col. 3, lines 12-25, lines 53-64 and col. 4, lines 11-17).

Given the teaching of Foster, it would have been obvious to one of ordinary skill in the art to define a URL as the identification code for the software program used in Chao in order to

provide sufficient descriptive information about the software program being upgraded on the

server.

As per claim **6**, Chao discloses the invention substantially as claimed.

However, Chao does not explicitly disclose wherein identification code comprises:

- a filename.

Foster discloses a method and apparatus for packaging and distributing software including:

- a filename (col. 3, lines 53-64 and col. 6, lines 41-67).

Given the teaching of Foster, it would have been obvious to one of ordinary skill in the art

to include a filename within the identification code for the software program used in Chao in

order to provide sufficient descriptive information about the software program being upgraded

on the server.

5.   Claims **9-12** and **18-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chao in view of Murata et al (hereinafter, "Murata", 5, 729, 761).

As per claim **9**, Chao discloses the invention substantially as claimed.

However, Chao does not explicitly disclose wherein step (e) comprises the step of:

(g) maintaining a server list, said server list identifying a computer program and an

application server for satisfying a request for said computer program.

In an analogous art, Murata a system for selecting one cluster of processors and upgrading

the version of the program to be executed by the processors belonging to the selected cluster

including:

(g) maintaining a server list, said server list identifying a computer program and an application server for satisfying a request for said computer program (abstract, col. 1, lines 62-65, col. 2, lines 1-20, col. 4, lines 33-52,col. 6, lines 21-67 and col. 9, lines 19-26).

Given the teaching of Murata, it would have been obvious to one of ordinary skill in art to implement or incorporate maintaining a server list in Chao's system in order to identify the completion of the version upgrading within a server in a timely and efficient manner.

As per claim **10**, Chao discloses the invention substantially as claimed.

However, Chao does not explicitly disclose wherein said signal in step (f) comprises:

- an identification code read from said server list.

In an analogous art, Murata a system for selecting one cluster of processors and upgrading the version of the program to be executed by the processors belonging to the selected cluster including:

- an identification code read from said server list (abstract, col. 1, lines 62-65, col. 2, lines 1-20, col. 4, lines 33-52,col. 6, lines 21-67 and col. 9, lines 19-26).

Given the teaching of Murata, it would have been obvious to one of ordinary skill in art to implement or incorporate reading the identification code from the server list in Chao's system in order to identify the software being upgraded within a server in a timely and efficient manner.

As per claim **11**, Chao discloses the invention substantially as claimed.

However, Chao does not explicitly discloses the step of:

(i) maintaining a session list of active client requests serviced by said application server, said session list identifying a client request and computer program requested by said client.

In an analogous art, Murata a system for selecting one cluster of processors and upgrading the version of the program to be executed by the processors belonging to the selected cluster including:

(i) maintaining a session list of active client requests serviced by said application server, said session list identifying a client request and computer program requested by said client. (abstract, col. 1, lines 62-65, col. 2, lines 1-20, col. 4, lines 33-52,col. 6, lines 21-67 and col. 9, lines 19-26).

Given the teaching of Murata, it would have been obvious to one of ordinary skill in art to implement or incorporate maintaining a session list in Chao's system in order to identify the requests being serviced by a server in a timely and efficient manner.

As per claim 12, Chao discloses the invention substantially as claimed.

However, Chao does not explicitly disclose wherein step (b) comprises the step of:

(j) referencing said session list.

In an analogous art, Murata a system for selecting one cluster of processors and upgrading the version of the program to be executed by the processors belonging to the selected cluster including wherein step (b) comprises the step of:

(j) referencing said session list (abstract, col. 1, lines 62-65, col. 2, lines 1-20, col. 4, lines 33-52,col. 6, lines 21-67 and col. 9, lines 19-26).

Given the teaching of Murata, it would have been obvious to one of ordinary skill in art to implement or incorporate maintaining a session list in Chao's system in order to identify the requests being serviced by a server in a timely and efficient manner.

As per claims 18 and 20, Chao discloses wherein step (a) comprises:

- sending a signal to said router identifying said computer program and said application server (abstract, col. 1, lines 27-47, col. 2, lines 26-38, col. 3, lines 36-57, col. 4, lines 26-45 and col. 5, lines 1-24).

However, Chao does not explicitly disclose wherein said signal includes:

- information retrieved from a server list and identifying said computer program.

In an analogous art, Murata a system for selecting one cluster of processors and upgrading the version of the program to be executed by the processors belonging to the selected cluster including wherein step (b) comprises the step of:

- information retrieved from a server list and identifying said computer program (abstract, col. 1, lines 62-65, col. 2, lines 1-20, col. 4, lines 33-52,col. 6, lines 21-67 and col. 9, lines 19-26).

Given the teaching of Murata, it would have been obvious to one of ordinary skill in art to implement or incorporate reading the identification code from the server list in Chao's system in order to identify the software being upgraded within a server in a timely and efficient manner.

As per claim 19, Chao discloses the invention substantially as claimed.

However, Chao does not explicitly disclose wherein step (b) comprises:

- receiving a signal from said application server, said application server maintaining a list of active client requests, said list identifying said computer program, said application server sending said signal when said list reflects no active client requests for said computer program.

In an analogous art, Murata a system for selecting one cluster of processors and upgrading the version of the program to be executed by the processors belonging to the selected cluster including:

- receiving a signal from said application server, said application server maintaining a list of active client requests, said list identifying said computer program, said application server sending said signal when said list reflects no active client requests for said computer program (abstract, col. 1, lines 62-65, col. 2, lines 1-20, col. 4, lines 33-52, col. 6, lines 21-67 and col. 9, lines 19-26).

Given the teaching of Murata, it would have been obvious to one of ordinary skill in art to implement or incorporate maintaining a session list in Chao's system in order to identify the requests being serviced by a server in a timely and efficient manner.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,505,257 to Murata et al

U.S. Pat. No. 6, 151,643 to Cheng et al

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 703-305-7494. The examiner can normally be reached on 8:30 AM - 5:00 PM.
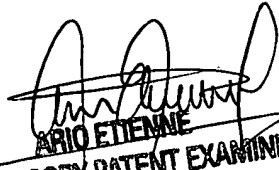
If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ario Etienne can be reached on 703-308-7562. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

                                                LaShonda T. Jacobs
                                                Examiner
                                                Art Unit 2157

ltj
January 23, 2004

ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
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